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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,383	02/21/2002	Bryan Bees	016790-0459	5011

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WASHINGTON, DC 20007

EXAMINER

SANDERS JR, JOHN R

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 08/29/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/078,383

Applicant(s)

BEES, BRYAN

Examiner

John R. Sanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) /
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) /
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 21 February 2001. It is noted, however, that applicant has not filed a certified copy of the DE 10108254.1 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0036763 A1 to *Krikke et al.* *Krikke* discloses an optical device (FIG. 1) comprising a light source (LA) that inherently has a cross-sectional area, a main objective (W), and a spectral filter (FIG. 2, ref. 21) between the light source and the main objective, which is adapted to reduce the intensity of the light in a specific region of the beam's cross-section (paragraph 23).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,715,704 to *Biber et al.* in view of U.S. Patent No. 6,305,801 to *Kerns, Jr. et al.*

6. *Biber* discloses a surgical microscope with a removable diaphragm that blocks a beam from the light source from reaching the retina. *Biber* does not disclose a filter, as opposed to the diaphragm, with the transmission characteristics as specified in the claims of the instant application.

7. *Kerns, Jr.* discloses a contact lens with filtering characteristics that read on the filter of the instant invention and that would have been obvious to one of ordinary skill in the art to incorporate into the surgical device of *Biber*.

8. Regarding Claims 1-4, *Kerns, Jr.* discloses a spectral filter, in the form of a contact lens, with a plurality of radial regions each having a different transmission characteristic with regard to the wavelength and intensity of the incident light (abstract). *Kerns, Jr.* does not expressly disclose a light source or a main objective. However, in analogous reasoning, one of ordinary skill in the art would recognize the main objective to be the eye of the contact lens wearer and the light source to be light rays incident on the eye.

9. Regarding Claims 5-8, *Kerns, Jr.* discloses filter regions designed to reduce UV and blue light intensity onto the retina. It is well known in the art (see cited art *Stephens et al.* '046 and *Johansen et al.* '748) that the range of the electromagnetic spectrum associated with UV and blue light has been implicated as a cause of macular degeneration, as well as other medical

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conditions. *Kerns, Jr.* discloses a filter absorbing portions of the light in different absorption regions, separated by flat absorption edges (FIGS. 5, 10).

10. Regarding Claims 10-13, *Kerns, Jr.* discloses filter regions in the center of the lens that reduce the blue light spectrum by 50% (FIG. 6). In embodiment variations, wavelengths of 400-500 nm are attenuated by 40-60% (FIGS. 8 and 9). *Kerns, Jr.* also discloses an outer region of the lens that is optically clear. See column 3, lines 8-37.

11. Regarding Claim 9, *Kerns, Jr.* does not expressly disclose the blue light region being reduced by 90%. However, in column 6, lines 38-52, *Kerns, Jr.* discloses a wide range of transmission percentages for the range of 400-510 nm, indeed between 0 and 100%. It would have been obvious to one of ordinary skill in the art to reduce the transmission of blue light to 90% to further reduce the possible negative effects associated within that range of the spectrum.

12. Regarding Claim 14, *Biber* discloses the diaphragm as being removable from the beam path (abstract). It would have been obvious to one of ordinary skill in the art to make the filter likewise removable so as to allow the surgeon to use the full illumination for a short period of time (*Biber*, col. 1: 58 - col. 2: 7).

13. Regarding Claims 15-19, it is common trade practice to have axially and laterally displaceable elements in an optical device, especially one relating to surgery of the eye. These elements are usually coupled to a control circuit incorporating an eye tracking device. Their positions are altered based on the eye position data for purposes of aligning the effect of the device (laser surgery, keratotomy, etc.) and data collection (wavefront sensors, CCDs) to the proper location of the eye. In the instant invention, it would have been obvious to one of ordinary skill in the art to move the filter; first, axially to alter the perceived size of the filtered

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light to match the pupil size of the eye (see *Kerns, Jr.*, col. 3: 10-14); second, laterally to align the filter regions with the axis of the eye. The latter task is automatically accomplished in *Kerns, Jr.* by the contact lens being in contact with the cornea.

14. Regarding Claim 21, thin films, LCDs and electrochromic films are all filter types that are commonly used in the art.

15. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Biber* in view of *Kerns, Jr.* as applied to claim 1 above, and further in view of U.S. Patent No. 6,271,968 to *Dobrowolski et al.*

Biber and *Kerns, Jr.* disclose the above limitations but do not expressly disclose having the (x, y) plane of the filter disposed non-normal to the beam. *Dobrowolski* teaches the use of filters at oblique angles to the beam axis used to filter the beam at predetermined wavelengths. It is also known in the art that changing the filter angle will alter the transmittance properties of the filter, since the beam has to travel at an oblique angle through the filter media. It would have been obvious to one of ordinary skill in the art to have a filter, with the limitations of *Kerns, Jr.*, incorporated into the device of *Biber* and disposed at a non-normal orientation to the beam.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Sanders whose telephone number is (703) 305-4974.

The examiner can normally be reached on M-F 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis W. Ruhl can be reached on (703) 308-2262. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



jrs



DENNIS RUHL
PRIMARY EXAMINER